RADIO COMMUNICATION EQUIPMENT

Ref. 4

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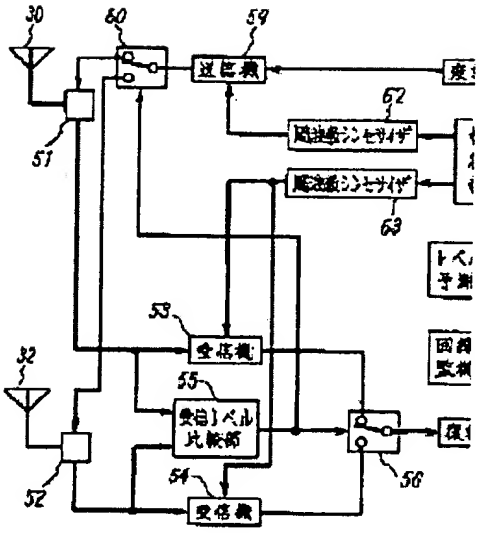
Abstract of **JP7050872**

PURPOSE:To obtain the radio communication equipment for executing a communication of a high quality by setting a threshold for deciding a bit code of a detection output of a receiver so that an error ratio becomes large and predicting the level fluctuation.

CONSTITUTION:This equipment is provided with a line quality monitoring circuit 11 for monitoring a detection output signal of a demodulator 57 and measuring an artificial error and a level fluctuation predicting circuit 12 for predicting a fluctuation of a receiving level from a fluctuation of the artificial error. A frequency switching instruction from the level fluctuation predicting circuit 12, a control part 13 switches a channel. In the level fluctuation predicting circuit 12, the inside of one burst is divided into several blocks, the number of artificial errors in every block is measured, and when a fluctuation of the measured artificial error shows an increase tendency, it is decided that the receiving level decreases and the channel quality tends to deteriorate. When the number of artificial errors measured by the channel quality monitoring circuit 11 exceeds a prescribed value, and the number of artificial errors tends to increase by the level fluctuation predicting circuit 12, a frequency switching signal is sent to the control part 13.



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Title of the Invention: Wireless Transmitter/Receiver

In order to prevent deterioration of the transmission quality caused by fading use is made of the "eye" monitor method to change the transmitting or receiving frequency in response to increase of the error rate above a given threshold value.

According to the "eye" monitor method the discrimination level in respect of which a decision is made about the bit code in case of appearance of bit errors is set to be purposely larger than the normal discrimination level (hereinafter called pseudo-threshold level); the transmission or reception is monitored in respect of the pseudo-threshold level for a given period; the number of pseudo-errors is determined and is converted into the pseudo-error rate; and finally the number of the true bit errors is determined from the known relation between the number of the true bit errors and the number of pseudo-errors.

Fig.5 shows the relation between the varying strength of level at which signals are received (solid line 201) and the pseudo-error number (broken line 202). The threshold level is given by 203. As shown, the broken curve 202 crosses the solid curve 201, halfway up to the peak (Point "A") and down to the foot (Point "B") respectively. According to the invention the frequency switching is effected at Point "A" to avoid further deterioration of the transmission quality as expected from the solid curve 201.